Massachusetts HIV/AIDS Data Fact Sheet

Women at Risk of HIV Infection

June 2007

Introduction

Although HIV/AIDS was first identified in men who have sex with men, the proportion of cases among women has increased over time. Currently, 29% of people recently diagnosed with HIV infection as well as people living with HIV/AIDS in Massachusetts are women.

General Statistics:

- Within the years 2003 to 2005, 786 women were diagnosed with HIV infection, accounting for 29% of all diagnoses in Massachusetts.
- On December 31, 2005, there were 4,598 women living with HIV/AIDS, accounting for 29% of people living with HIV/AIDS in Massachusetts.

Regional Distribution:

- Among Health Service Regions (HSRs), the Central and Western regions have the largest proportions of women diagnosed with HIV infection within the three-year period 2003 to 2005 at 40% and 37%, respectively. Among people living with HIV/AIDS, the Central and Western regions also have the largest proportions of women, both at 38%.

Among cities with over 20 people diagnosed with HIV infection within the three-year period 2003 to 2005, the following have at least 40% of diagnoses among women:

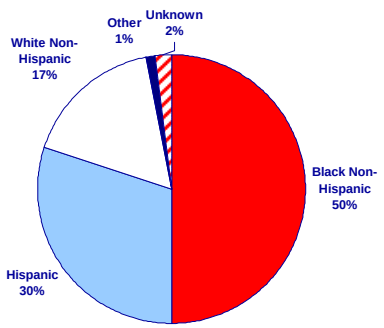
- Brockton 54% (N=33)
- Waltham 53% (N=16)
- Lynn 52% (N=30)
- Worcester 50% (N=70)
- Lawrence 46% (N=34)
- Lowell 43% (N=41)
- Chicopee 42% (N=11)
- Springfield 42% (N=86)

NOTE: N *indicates number of women reported as diagnosed with HIV infection.*

Race and Ethnicity:

- Among recent HIV infection diagnoses, 50% of women are black (non-Hispanic), compared to 25% of men and 30% are Hispanic, compared to 24% of men. Similarly, among people living with HIV/AIDS, 40% of women are black (non-Hispanic), compared to 23% of men and 28% are Hispanic, compared to 23% of men.

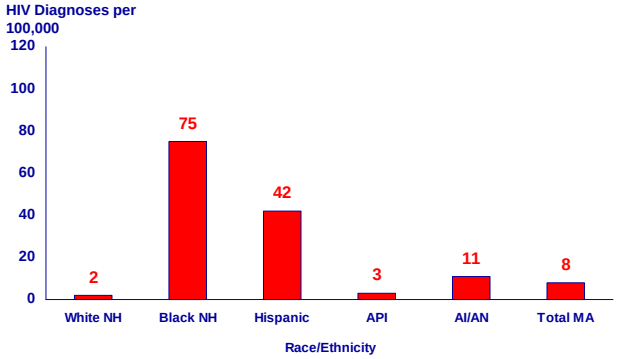
Figure 1. Women Diagnosed with HIV infection from 2003–2005 by Race/Ethnicity: Massachusetts



Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 7/1/06

- **Disparate Impact:** The age-adjusted average annual rate of HIV diagnosis from 2003 to 2005 among black (non-Hispanic) females (75 per 100,000) is 38 times greater, and among Hispanic females (42 per 100,000) is 21 times greater than for white (non-Hispanic) females (2 per 100,000).

Figure 2. Age-Adjusted Rate of HIV Diagnosis per 100,000[1] Population *Among Females* by Race/Ethnicity: Average Annual Rate 2003–2005, Massachusetts



1 Population sizes for rate calculations are based on year 2000 population estimates from the MDPH Center for Health Information, Statistics, Research and Evaluation; NH= Non-Hispanic, API = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 7/1/06

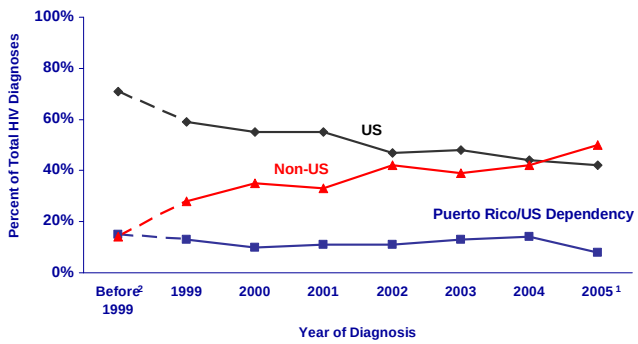
Massachusetts Department of Public Health HIV/AIDS Bureau 250 Washington St. 3rd Floor Boston, MA 02108
617.624.5300 FAX 617.624.5399 www.mass.gov/dph/aids

- Similarly, the age-adjusted prevalence of HIV/AIDS among black (non-Hispanic) females (1,094 per 100,000) is 23 times greater and among Hispanic females (743 per 100,000) is 15 times greater than for white (non-Hispanic) females (48 per 100,000).

Place of Birth

- Forty-three percent of females diagnosed with HIV infection within the three-year period 2003 to 2005 were born outside the US, compared to 22% of males. Similarly, 26% of females living with HIV/AIDS were born outside the US, compared to 15% of males.
- From 1999 to 2005, the proportion of females born outside the U.S. among those with HIV infection increased from 28% to 50%.

Figure 3. Percentage Distribution of *Females* Diagnosed with HIV Infection by Place of Birth and Year of Diagnosis: Massachusetts, Before 1999, 1999–*2005*[1]



[1] 2005 data are preliminary; [2] Note: a dashed line is used to distinguish between pre-1999 data (which is an aggregate of multiple years before the implementation of HIV surveillance in 1999) and annual data for subsequent years. Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 7/1/06

Exposure Mode:

- Exposure mode among women diagnosed with HIV infection within the three-year period 2003 to 2005:
  - 23% (N=180) heterosexual sex (with partners with known risk and/or HIV status)
  - 15% (N=120) injection drug use
  - 2% (N=12) other modes (including blood or blood products and pediatric)
  - 44% (N=342) presumed heterosexual sex with partners with unknown risk or HIV status (presumed heterosexual sex)[1]
  - 17% (N=132) no identified risk
- Exposure mode among women living with HIV/AIDS:
  - 33% (N=1,495) heterosexual sex
  - 30% (N=1,369) injection drug use
  - 4% (N=174) other modes (including blood or blood products and pediatric)
  - 28% (N=1,272) presumed heterosexual sex with partners with unknown risk and HIV status (presumed heterosexual sex)[1]
  - 6% (N=288) no identified risk

Exposure Mode and Race/Ethnicity:

- Among **white (non-Hispanic) females**, injection drug use is the predominant exposure mode, attributed as exposures in 38% of females recently diagnosed with HIV infection and 49% of females living with HIV/AIDS.
- Among **black (non-Hispanic) females**, presumed exposure through heterosexual sex with partners with unknown risk or HIV status (presumed heterosexual sex) is the predominant exposure mode, accounting for 56% of females recently diagnosed with HIV infection and 42% of females living with HIV/AIDS.
- Among **Hispanic females**, presumed exposure through heterosexual sex with partners with unknown risk or HIV status (presumed heterosexual sex) is the predominant exposure mode among females recently diagnosed with HIV infection, accounting for 36% of exposures and heterosexual sex (with partners with known risk and/or HIV status) is the predominant exposure mode among females living with HIV/AIDS, accounting for 43% of exposures.

Age at HIV Diagnosis:

A larger proportion of females than males are diagnosed with HIV infection in younger age groups.

- Ten percent of females diagnosed with HIV infection within the three-year period 2003 to 2005 were diagnosed during adolescence (13-24 years), as compared to 6% of males, and 13% were diagnosed between the ages of 25 and 29, as compared to 9% of males.

Women at Risk of HIV infection

Behavioral Risk Factors: According to local behavioral surveys, females in Massachusetts are engaging in behaviors that put them at risk for HIV infection.

- Among 1,053 sexually active female respondents (age 18-64) to the 2005 Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS), 78% (N=822) did not report condom use at their last sexual encounter. Of these women, the main reason reported for not using a condom was being in a monogamous relationship (85%).
- Among school-aged female respondents to the 2005 Massachusetts Youth Risk Behavior Survey (MYRBS), 43% reported ever having sexual intercourse, 2% reported having sexual intercourse before age 13, and 11% reported having 4 or more lifetime sexual partners. Among females who reported sexual intercourse in the three months before the survey, 59% reported condom use at last intercourse and 20% reported substance use at last intercourse.
- The proportion of school-aged female respondents to the MYRBS that reported condom use at last intercourse increased from 47% in 1993 to 59% in 2005.
- The proportion of school-aged females reporting that they ever had sex decreased from 46% in 1993 to 43% in 2005.

HIV-Related Morbidity and Mortality Among Women

AIDS Diagnoses:

- The proportion of AIDS diagnoses among females increased from 27% in 1996 to 33% in 2003, and then decreased to 28% in 2005.

Mortality with AIDS:

- The proportion of female deaths among people diagnosed with AIDS rose from 21% in 1996 to 30% in 2003, declined to 25% in 2004, and then rose again to 30% in 2005.

[1] ***Note for interpretation of presumed heterosexual sex category:*** *The category of "presumed heterosexual" is used in Massachusetts to re-assign people who are reported with no identified risk but who are known to have not reported any other risks except heterosexual sex with a partner of unknown HIV status or risk. Massachusetts uses this category to distinguish these cases from other undetermined cases about which we know less. Nationally, the Centers for Disease Control and Prevention categorizes "presumed heterosexual" cases as "no identified risk" (NIR). As such, comparisons of the presumed heterosexual category cannot be made to national data. Caution should be used in interpreting data for presumed heterosexual, as it is still not clear what the exposure risk is for people in this category. Although a person may not report other risk behaviors such as injection drug use or male-to-male sex to his/her health care provider, it does not necessarily mean that he/she has not engaged in them. There are many barriers to disclosing HIV risk behaviors in the health care setting such as a limited patient-provider relationship or stigma.*

Data Sources:

HIV/AIDS Case Data: MDPH HIV/AIDS Surveillance Program; data as of July 1, 2006

BRFSS Data: Massachusetts Department of Public Health, Bureau of Center for Health Information, Statistics, Research and Evaluation, Behavioral Risk Factor Surveillance System

YRBS Data: Massachusetts Department of Education, 2005 Youth Risk Behavior Survey Results

Additional References of Interest:

Gentry QM, Elifson K, Sterk C. Aiming for more relevant HIV risk reduction: a black feminist perspective for enhancing HIV intervention for low-income African American women. AIDS Educ Prev. 2005 Jun;17(3):238-52

Hader S, Smith DK, Moore JS, Holmberg SD. HIV infection in women in the United States: status at the millennium. JAMA 2001;285:1186–92

Ickovics JR, Beren SE, Grigorenko EL, Morrill AC, Druley JA, Rodin J. Pathways of Risk: Race, Social Class, Stress, and Coping as Factors Predicting Heterosexual Risk Behaviors for HIV Among Women. *AIDS and Behavior*. 2002:6:339-350.

McClelland GM, Teplin LA, Abram KM, Jacobs N. HIV and AIDS risk behaviors among female jail detainees: implications for public health policy. Am J Public Health. 2002 May;92(5):818-25

Pulerwitz J, Amaro H, De Jong W, Gortmaker SL, Rudd R. Relationship Power, Condom Use and HIV Risk Among Women in the USA. *AIDS Care*. 2002;14:789-800.

For more detailed information and a description of data limitations please see "HIV/AIDS in Massachusetts: An Epidemiologic Profile", available online at www.mass.gov/dph/aids